

The Fabulous  
**Lighting Maven**  
*Unexpectedly Illuminating*

ACTION-ORIENTED PEARLS OF WISDOM FOR INDUSTRIAL MANAGERS AND CONTRACTORS  
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Dear Reader:

There are two ways to lessen the kWh consumption of your lighting system: 1. install higher efficacy LED fixtures, and 2. include a control system. One (new fixtures) involves a smaller kW draw than your existing system, and the other (controls) results in less time the new fixture will be 'on' as compared to a fixture without control, and under what conditions. There is a third option, that being to install LED tubes into your existing fixtures, but we don't recommend this approach, given the inefficiency of the old fluorescent fixtures you'd install them into.

**IMPROVING kWh CONSUMPTION**

Efficacy is the amount of work the lighting fixture provides, in the form of lumen output, divided by its input wattage. For more on this, see [Efficiency vs Efficacy: What's the Difference?](#).

Lighting controls are separate and apart from the fixture, although frequently embedded. They're designed to control the amount of light emitted from a fixture, or when and for how long, or under what conditions. They exist to give the Facility Manager control at his/her fingertips, over five different functions:

**Ramping Up & Fading Down** – The amount of time a fixture takes to come up to its desired output, or back down to off, controllable to make the transition a little easier on human eyes. See [Eliminate Harsh On and Offs with Ramping and Fading](#).

**Daylight Harvesting** – The ability to harvest daylight that may be coming into the environment via windows or skylights. See [Sunlight is Free](#).

**Scheduling** – Providing you with a settings regime that may be more aggressive during non-business hours than you would want during business hours. See [Schedule Off Times When Production is Down](#)

**High End Trimming** – Giving you the ability to control to just that right amount of output for the task. See [Dial the Output Down with Trimming](#)

**Occupancy Sensing** – Enabling the Manager to control under what conditions a fixture comes up, or shuts down (or dims). See [Wireless Sensors for Lighting Energy Savings](#)

The Energy Efficiency and Renewable Energy division of the U.S. DOE has put out a great paper on occupancy sensor control, in particular, and you can find it here: [Wireless Occupancy Sensors for Lighting Controls](#).



U.S. Power is an industrial energy services company that specializes in the reduction of energy consumption across a broad array of manufacturing and food processing facilities located in Michigan, Ohio, Indiana, Illinois and Wisconsin. In addition, the company publishes a useful curation of lighting-oriented information from the marketplace, and consolidates it into this concise, twice per month letter known as The Fabulous Lighting Maven, distributed to Facilities Managers throughout the nation.

While the company prides itself in its diversity, it owns and operates a niche lighting contracting firm as well, known as U.S. Power Vision, LLC. With a core business in and around industrial LED lighting, it keeps itself and its clients at the cutting edge of illuminating technologies, all aimed at providing – from the eyes to the fingertips – exceptional illumination, superb control and intuitive simplicity.

**YOUR MORNING GRIN**

We like to combine humor with competence and panache. It must be working.

Certainly all of our lighting systems are.

**Ron Motsch**  
**(616) 570-9319**

*Building and Managing a Suite of  
The Most Productive and Admired  
LED Lighting Systems on Earth*

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